

REMARKS

The Office Action dated September 15, 1009 has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto.

Claims 8-18 have been rejected, and claims 1-7 are withdrawn. Claims 8, 9, 11, 13, and 18 have been amended, and new claim 19 has been added. Thus, claims 1-19 are pending in this application. Support for the amendments may be found in the specification as originally filed. In particular, support for the amendments to claim 8 and new claim 19 may be found in the specification at least at page 14, paragraphs [0018] to page 15, paragraph [0019], page 19, paragraph [0024] and Figure 1. Applicants submit that no new matter is added. Applicants respectfully request reconsideration and withdrawal of all rejections and objections.

Claim Objection

Claim 9 is objected to under 37 C.F.R. §1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 9, as amended, recites "repeating one of the one surface treating step and other surface treating step a plurality of times for each unit layer", while claim 8, as amended, recites "repeating one of the one surface treating step and the other surface treating step for each unit layer". The Office Action asserts that the "repeating...a plurality of times" limitation in claim 9 does not further limit the "repeating" limitation of claim 8.

Applicants submit that the "repeating" limitation of claim 8 allows for repeating the surface treating steps once or a plurality of times, while the "repeating...a plurality of

times" limitation in claim 9 requires repeating the surface treating steps a plurality of times. Therefore, Applicants submit that claim 9 is narrower in scope than claim 8. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claim 9.

Rejection Under 35 U.S.C. §112

Claims 8-18 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action states that there is insufficient antecedent basis for the term "each unit layer" in claim 8. Further, the Office Action contends that the terms "unit layer" and "cycle" are not defined in claim 8.

Applicants have amended claim 8 to clarify the meaning of the term "unit layer" and to remove the term "cycle" to overcome this rejection. In addition, claims 9, 13 and 18, have been amended corresponding to the amendments to claim 8. Accordingly, Applicants respectfully request withdrawal of the §112 rejection of claims 8-18.

Rejection Under 35 U.S.C. §103

Claims 8, 9, 11, 13 and 15-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamoto (U.S. Patent Application Publication No. 2002/0104477, hereinafter "Yamoto") in view of Mase (U.S. Patent No. 5,103,287, hereinafter "Mase") and Raajmakers (U.S. Patent Application Publication No. 2002/0052124, hereinafter "Raajmakers"). Claims 12 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamoto in view of Mase and Raajmakers as applied to claim 8

above in further view of Wang (U.S. Patent Application Publication No. 2004/0121085, hereinafter "Wang") and Dip (U.S. Patent Application Publication No. 2005/0066892, hereinafter "Dip"). Claims 8-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamoto in view of Wang. Applicants respectfully traverse these rejections.

Claim 8, as amended, recites:

"A method for forming a laminated thin film on a substrate composed of plural unit layers, each unit layer comprising a surface-treated thin film using an exothermic catalyst body resistance heated in a reactive vessel capable of performing vacuum pumping, said method comprising:
providing a gas supply system comprising comprising a thin-film-component gas line, a hydrogen gas line, a first mass-flow controller positioned in the thin-film-component gas line, a first valve, a second valve, a first line coupling the first mass-flow controller to a vent, and a second line coupling the first mass-flow controller to the reactive vessel, wherein the first valve is positioned in the first line between the first mass-flow controller and the vent and the second valve is positioned in the second line between the first mass-flow controller and the reactive vessel;
a step of opening the first valve and closing the second valve to supply a predetermined flow rate of the thin-film-component gas to the vent;
a step of simultaneously closing the first valve and opening the second valve to introduce rectangular pulsed flows of the thin-film-component gas to the reactive vessel..."

Applicants submit that the proposed combination of references fails to teach or suggest at least the recited gas supply system and the steps of operating the gas supply system recited in claim 8.

For at least the above reasons, Applicants respectfully submit that claims 8-18 are not obvious over the cited references. Thus, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 8, 9, 11, 13 and 15-18 under

RESPONSE WITH RCE

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35 U.S.C. §103(a) over Yamoto in view of Mase and Raaijmakers, the rejection of claims 12 and 14 under 35 U.S.C. §103(a) over Yamoto in view of Mase and Raaijmakers, in further view of Wang and Dip, and the rejection of claims 8-18 under 35 U.S.C. §103(a) over Yamoto in view of Wang.

CONCLUSION

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 029567-00011.

Respectfully submitted,



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